



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,183	02/26/2004	Peter J. Coassin	AURO1420-1	6955

7590 09/20/2005

LISA A HAILE, PH.D.
GRAY CARY WARE & FREIDENRICH LLP
4365 EXECUTIVE DR
SUITE 1100
SAN DIEGO, CA 92121-2133

EXAMINER

LUDLOW, JAN M

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/789,183	Applicant(s) COASSIN ET AL.	
	Examiner Jan M. Ludlow	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) 19-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/26/2004, 6/15/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1743

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-6, 8-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Downs et al (2002/0153055) in view of Peck et al and/or Krug et al..

Downs teaches a support frame (table-like platform on which the dispenser is mounted), a dispensing module 35, 30, 25, and a moving platform 50 for supporting plates (Fig. 1, [0017], elsewhere). The fluid dispensers include at least two dispensers, optionally in a plurality of linear arrays [0011]. Note also that the instant application defines linear arrays as rectangular. Dispensers are spaced 4.5mm, 2.25mm or less apart, depending upon well spacing [0012]. Each dispenser includes a fluid conduit in communication with a fluid source or reservoir, a pump (pressurization source), and may include a solenoid or piezoelectric valve [0016]. The apparatus is under software control [0018].

Downs fails to explicitly teach that the dispensing unit is removably attached to the frame. Downs fails to teach air pressurization.

Peck et al teaches a dispenser similar to that of Downs, including gas pressure to pump fluid from containers through lines to dispensers (Fig. 2).

Krug et al teaches a dispenser similar to that of Downs, including gas pressure to pump fluid from containers through lines to dispensers (Fig. 1).

It would have been obvious to one of ordinary skill to use gas pressurization to pump fluid to a dispensing tip in the apparatus of Downs in order to provide an alternative method of fluid pumping in a dispensing device as taught by Peck and/or Krug. With respect to "permanent pressurization", note that Krug teaches a continuously monitored and maintained pressurization in the reagent vessel of 5 psi [0014], and that Peck teaches that each reagent vessel is pressurized with an inert backing gas [0023]. Each reference teaches that dispensing is accomplished by opening a valve between the reagent bottle and the dispensing nozzle. No valves (other than check valves) are shown or described between the pressurizing gas and the reagent bottle to interrupt the flow of pressurizing gas to the reagent bottles.

It would have been further obvious to one of ordinary skill in the art to attach the dispensing module to the frame in order to provide a stable arrangement, e.g., to ensure that the dispensing module maintains the proper relative positioning with respect to the moving platform 50 as was known in the art. It would have been further obvious to make it removably attached, including the use of quick release clamps, in order to facilitate assembly and disassembly for moving, cleaning and/or part replacement or repair as was known in the art. With respect to dimensions not specifically taught, it would have been obvious to optimize tip spacing in order to use known well plates and to optimize tube length and volume to minimize reagent volumes for the dispensing of small volumes (e.g., 1nl to 500 ul [0012]) in order to save on reagent cost, waste, etc. With respect to claims 15-17, it is the examiner's position that the results are inherent.

Art Unit: 1743

6. Applicant's arguments filed July 5, 2005 have been fully considered but they are not persuasive.

Applicant argues that neither Peck nor Krug teaches pressurization of the reagents prior to pumping, but Krug teaches a continuously monitored and maintained pressurization in the reagent vessel of 5 psi [0014], and that Peck teaches that each reagent vessel is pressurized with an inert backing gas [0023]. Each reference teaches that dispensing is accomplished by opening a valve between the reagent bottle and the dispensing nozzle. No valves (other than check valves) are shown or described between the pressurizing gas and the reagent bottle to interrupt the flow of pressurizing gas to the reagent bottles, and they are therefore "permanently pressurized."

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1743

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan M. Ludlow whose telephone number is (571) 272-1260. The examiner can normally be reached on Monday-Thursday, 11:30 am - 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jan M. Ludlow
Primary Examiner
Art Unit 1743

Jml
September 18, 2005

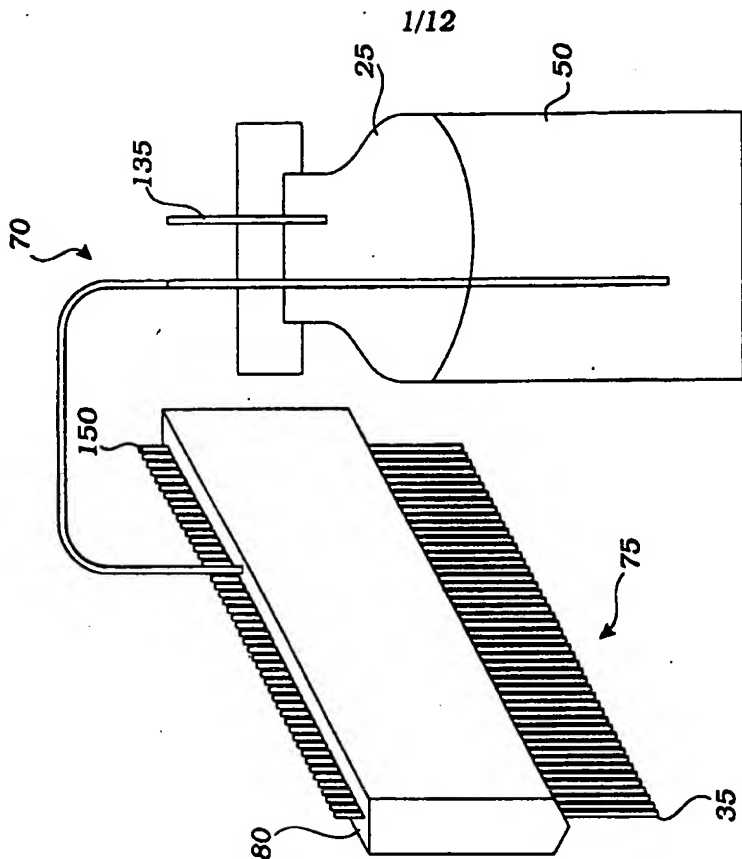


Fig. 1B
(PRIOR ART)

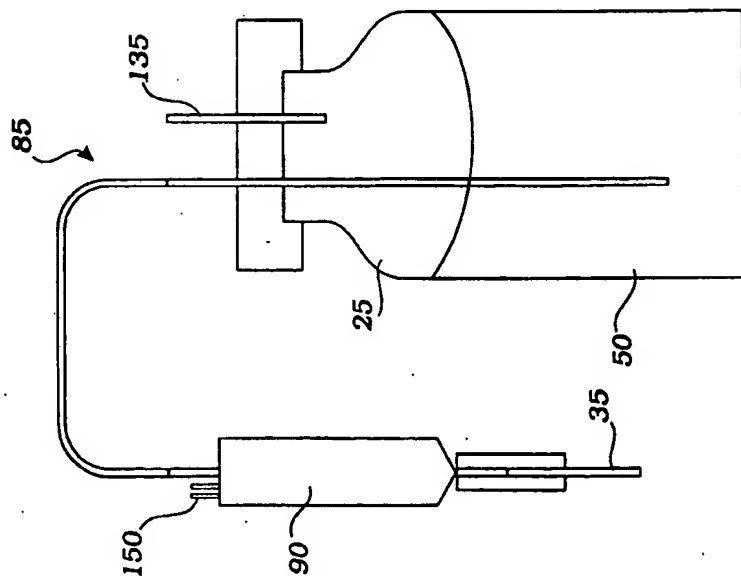


Fig. 1A
(PRIOR ART)

Approved
9/18/2005